

JOURNAL
OF THE
ASIATIC SOCIETY.

PART II.—PHYSICAL SCIENCE.

~~~~~  
No. III.—1871.  
~~~~~

ON INDIAN AND MALAYAN TELPHUSIDÆ, Part I,—
by J. WOOD-MASON, Esq.

(With pl. xiii, and xiv.)

(Continued from p. 200).

Telphusa lævis, n. sp., pl. xiv, figs. 1—6.

The carapace is narrow especially posteriorly, cordiform, smooth, extremely convex in every direction, finely granulated and punctate, unbroken by interregional furrows, the posterior boundary of the gastric area alone being faintly indicated; epigastric lobes hardly perceptible in some specimens; post-frontal ridge feebly developed, interrupted, most apparent behind the eyes; postero-lateral margins rounded off, marked with extremely delicate oblique wrinkles which pass downwards and forwards on to the branchial floor which is much swollen; antero-lateral margins rounded, inclined, bearing rudimentary epibranchial teeth which pass backwards and inwards for a short distance as an obscure, crenulated crest. Front broad, deflexed, terminated by a nearly straight free margin; its anterior third flattened and perfectly vertical. Orbits oval with obscurely crenated margins, not at all salient; their external angles scarcely projecting beyond the general level of the orbital margins; anterior pleural regions convex, finely granulated, separated near their internal boundaries from the rest of the inferior surface of the carapace by a well defined, finely tuberculated line, passing directly

downwards from the epibranchial teeth. The posterior margin of the peristoma has a median rounded projection, notched on each side. The chelipedes are very unequal, in some specimens the right, in others the left being the larger; meropodites with their dorsal edges sharply rugose; carpopodites also rugose with their inner margins armed in the usual manner with a sharp tooth, beneath which is a smaller one; the propodite of the larger claw is extremely convex, smooth, granulated and near its extremity canaliculate, punctate, and with the granulations passing into minute sharp spinules; the dactylopodite is similarly marked and is in contact with the extremity only of the produced portion of the penultimate joint in the larger claw.

The ambulatory legs are thin, slender, and rugose.

Length, 16 mm.

Breadth, 21 mm.

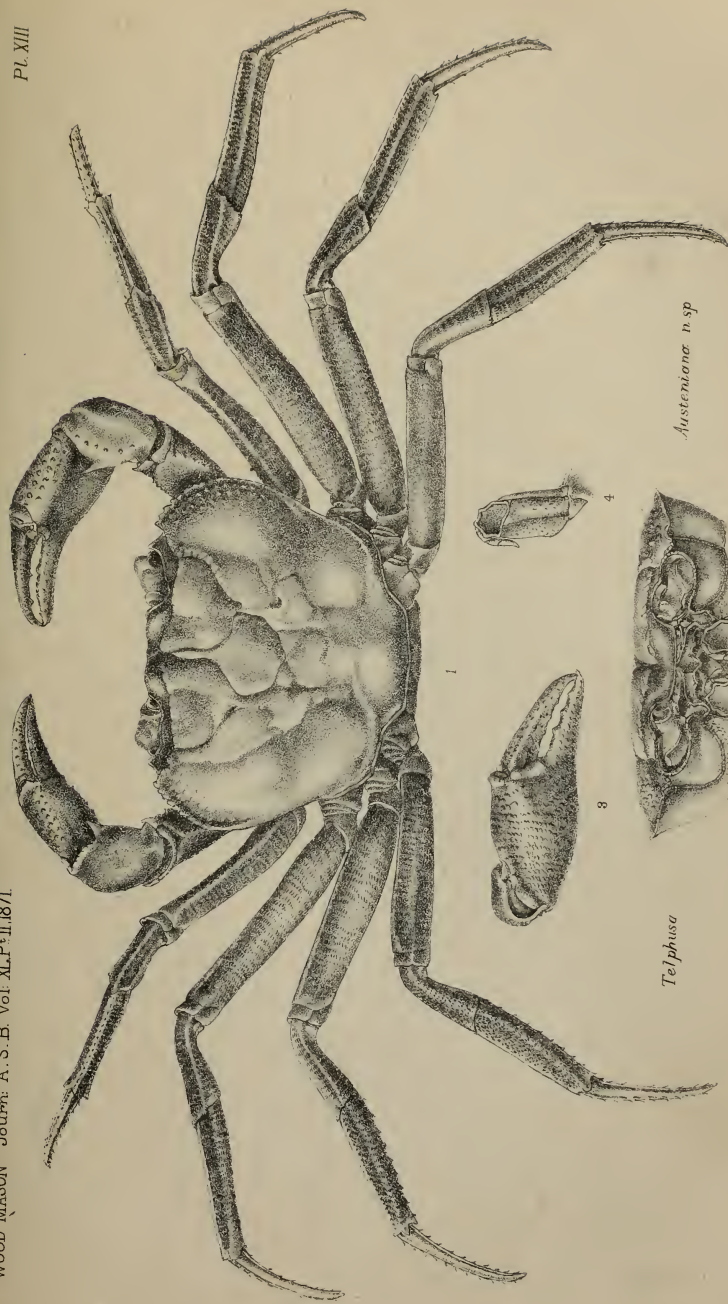
Hab. Cherra Púnjí; Goalparah.

Plate XIV. Fig. 1. *Telphusa laevis*, nat. size. 2. Front view. 3. External maxilliped. 4. Chela. 5. Do. of another specimen. 6. Abdomen of male.

TELPHUSA LESCHENAULTII.

Milne-Edwards, *Hist. Nat. des Crust.*, Tom. II, p. 13, *Ann. des Sc. nat.*, III. Sér., Tom. XX, p. 211. Heller, *Reise der Fregatte Novara*, *Crustaceen*, p. 32. Alph. Milne-Edwards, *Révision du genre Telphusa*, *Nouvelles Archives du Muséum*, 1869, Tom. V, p. 165, pl. viii, fig. 3, 3a.

Carapace convex from behind forwards and transversely; front broad, especially at base, sinuous, produced, with a sharp chisel-like free edge; anterior boundary of the epistoma almost straight, sending forwards a small median process which indents the sub-frontal lobe, scarcely taking any share in the formation of the inter-antennular septum; posterior edge divided by two distinct notches into three rounded lobes, the median one of which is largest, lateral lobes internally rounded but passing almost straight outwards to form the anterior boundaries of the orifices for the egress of the water that has served for respiration. Post-frontal crest interrupted, divided into two external larger and two internal slightly advanced smaller portions which together equal in width one of the former; antero-lateral margin armed with an epibranchial tooth

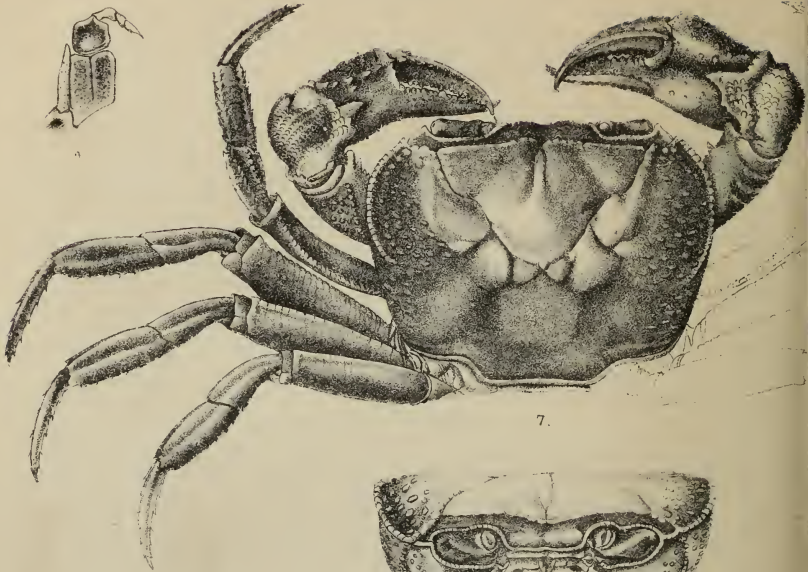


Austeniana n. sp

Telphusa

S. Sedgfield Lith.

Calcutta



7.

8.



14.



12.

13.



10



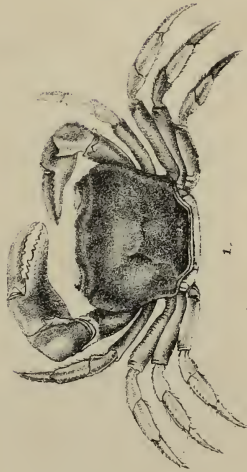
6



5



11



1



2



15



16



7



3



4

continued backwards and inwards as a sharp, finely crenulated crest. The surface of the carapace, especially anteriorly, appears minutely granular under an ordinary lens, its sides behind the points at which the cristiform continuations of the epibranchial teeth subside are marked with oblique sub-parallel corrugations. The four posterior pairs of ambulatory legs are extremely thin; the posterior flat faces of their meropodites are raised into coarse granulations, while the anterior surfaces remain smooth; the dactylopodites are extremely slender, acute. Chelipedes subequal, dactylopodites in contact throughout their entire length with the propodites the outer faces of which are smooth and convex; carpopodites furnished internally with a long sharp spine, beneath which is a smaller one; meropodites corrugated on their posterior surfaces.

I am unable to verify Heller's statement that the crest on the latero-anterior margin is smooth in the females.

Hab. Ranígunj; Pondicherry; Madras; Ceylon; Malabar coast; Mauritius; Nicobar Islands and probably many other islands of the Indo-Malayan archipelago; and Tahiti.

TELPHUSA GUERINI.

Telphusa Guerini, Milne-Edwards, Mélanges Carcinologiques, p. 176; Alph. Milne-Edwards, Nouv. Archives du Muséum, 1869, Tom. V, p. 182, pl. xi, fig. 4, 4a et 4b.

Telphusa planata, Alph. Milne-Edwards, Nouv. Archives du Muséum, 1869, Tom. V, p. 181, pl. xi, fig. 3, 3a et 3b.

Telphusa planata is given as a synonym of *T. Guerini*, M.-Edw., with doubt, although M. Alph. Milne-Edwards' description of the former applies exactly to individuals amongst my series of examples of the latter.

Hab. Concan and Khándalla, Western Gháts, near Bombay; Belaspúr.

Telphusa Austeniana, n. sp., pl. xiii.

Carapace much broader than long, flattened in the middle posteriorly to a line passing through its widest part; protogastric lobes convex, separated from one another by the narrow forward prolongation of the meso-gastric lobe; meso-gastric furrow passing into the post-frontal, deeply dividing the two epigas-

tric lobes which are all but confluent with the protogastric: branchial lobes convex, each divided by a transverse valley into an anterior and posterior portion; postero-laterally to the gastric region the surface of the carapace is raised on each side into an irregular areolet bounded antero-laterally by the epibranchial, behind by the meta-branchial lobe from which the cardiac area is separated by an indistinct longitudinal depression; post-frontal furrow deeply excavated behind the eyes; post-frontal crest scarcely interrupted by the advanced position of the epigastric lobes, continued outwards on each side from the meso-gastric furrow in an irregular, rugose line to the epibranchial teeth; these pass backwards, as prominent dentate crests and, with the extra-orbital teeth, are extremely salient; orbital margins finely crenated; front deflexed, wider at base than at its free margin, raised into two eminences one on each side of the middle line; antero-lateral portions of the branchial regions marked with numerous coarse granulations; postero-lateral margins and the parts of the carapace which form the floors of the branchial cavities rugose. Chelipedes slender; chelæ externally rugose, covered, especially on their infero-internal surface, with small rough tubercles. Carpopodites above rugose with a longitudinal row of tubercles near their inner margins, from which there projects a very sharp spine with a smaller one below it. Ambulatory legs enormously long and slender by which character alone it is possible at once to distinguish *T. Austeniana* from all its known congeners.

Breadth, 48 mm.

Length, 35 mm.

Length of carpopodite of 3rd pair of ambulatory legs = 34 mms. or nearly equal to the length of the carapace.

Hab. Cherra Púnjí; the only specimen obtained is a female.

Plate XIII. Fig. 1. *Telphusa Austeniana*, nat. size. 2. Front view. 3. Chela. 4. External maxilliped.

Telphusa Pealiana, n. sp., pl. xiv, figs. 7—11.

Carapace thick, not much broader than long, convex from behind forwards; its areolation is similar to that of *Telphusa Atkinsoniana*; the cervical suture cuts through the post-frontal crest about 5 millimetres internally to the epibranchial teeth; these are moderately salient; the branchial region is somewhat convex and covered anteriorly with coarse irregular granulations; antero-lateral margin inclined,

surmounted by an evenly denticulated crest; postero-lateral margin covered with oblique wrinkles which pass forwards and downwards on to the inflected portion of the carapace; posterior pleural lobe, where it is bounded by the anterior pleural, rugose; the latter is limited off by a line of regular bead-like tubercles; post-frontal crest, continuous to the epibranchial teeth from the meso-gastric furrow, curving forwards mesially and at each end; post-frontal furrow smooth behind the eyes; front narrow, deflexed, raised into a bilaterally symmetrical pair of eminences. Chelipedes subequal in the only specimen* (a female) in my possession; the meropodites are tuberculately rugose on their posterior surfaces and their ventral angles are beset with long tubercles; the carpopodites are rugose above and their inner margin is armed with a very sharp long spine from the sides of which spring 2 or 3 minute cusps; beneath the larger spine a smaller one is to be seen. The penultimate joint is externally rough, internally near the inferior margin tuberculated and above presents a few spiniform tubercles; the dactylopodite which is in contact with the other arm of the pincers throughout its length line has a few spinules above near its proximal end.

Length, 32 mm.
 Breadth, 41 mm.

The posterior pair of ambulatory legs has not been preserved, but from those that remain, it will be seen that the penultimate joints resemble slightly those of *Telphusa Austeniana*, and of *T. Stoliezkanæ*. I have named this species after Mr. S. E. Peal, to whom the Indian Museum is indebted for many novelties in the various groups of Arthropoda.

Hab. Síbsaugor, Assam.

Plate XIV. Fig. 7. *Telphusa Pealiana*, nat. size. 8. Front view. 9. External maxilliped. 10. Chela. 11. Abdomen of male.

Telphusa Atkinsoniana, n. sp., pl. xiv, figs. 12—16.

The carapace is much broader than long, smooth, punctate mesially and posteriorly; the anterior branchial lobe is not greatly swollen above, is covered anteriorly with coarse granulations; epigastric lobes granulated, separated behind and laterally from the granulated proto-gastric and from one another by the meso-gastric

* Several specimens of each sex have been received from Mr. Peal since the above went to press.

furrow; postfrontal crest well developed, most distinctly tuberculated, curving slightly forwards at each end and passing completely into the epibranchial teeth, notched on each side externally to each epigastric lobe and internally to each epibranchial tooth; epibranchial teeth salient, separated from the denticulated margins of the prominent extra-orbital angles by a notch, curving backwards as regularly dentate crests; orbital and frontal margins conspicuously tuberculated; front moderately broad, deflexed, covered with rounded tubercles, smooth in the middle line, terminating in a nearly straight free margin. Postero-lateral margins marked with oblique rugations which gradually assume a tuberculated character as they pass forwards on to the inflected portion of the carapace; anterior pleural lobe beset in the centre with irregularly disposed rounded tubercles, limited off from the surrounding area by a regular line of larger bead-like tubercles.

Chelipedes subequal, densely tuberculated; meropodites with all their angles sharply tuberculated; carpopodites above granulately rugose and becoming towards the inner margin tuberculated, the tubercles extending on to the sides of the spine; beneath this spine is a smaller one from which passes upwards and towards the proximal articular extremity of the joint a row of two or three spiniform tubercles; externally the penultimate joint is excessively tuberculately granulated, the tubercles becoming very coarse and irregular in aged specimens, and on the upper border passing into spiniform tubercles in specimens of all ages; the superior margin of the dactylopodites is also beset with spiniform tubercles and their inner toothed margin is in contact throughout its length with the other arm of the pincers; the extremities of these are tipped with a blackish colour which is capable of defying the blanching action of spirit for years.

I will not venture to describe the precise distribution of the colours of this beautiful species, because I omitted to note them particularly when I received the specimen which has been chosen for description fresh from the hands of Dr. Stoliczka, but I can say that the inferior surface generally and the inner aspects of the chelipedes are suffused with a beautiful violet colour, the tubercles and spines offering their bright red tips in remarkable contrast

Breadth, 38 mm.
 Length, 28 mm.

Hab. Darjeeling; Thancote Hills, Nepal; Khasi Hills (?).

I have much pleasure in connecting with this beautiful species the name of Mr. W. S. Atkinson.

Plate XIV. Fig 12. *Telphusa Atkinsoniana*, nat. size. 13. Front view. 14. External maxilliped. 15. Chela. 16. Abdomen of male.

(*To be continued in the next number of the Journal.*)



NOTES ON BIRDS OBSERVED IN THE NEIGHBOURHOOD OF NAGPORE AND KAMPTEE, (CENTRAL PROVINCES), CHIKALDA AND AKOLA IN BERAR, —by *Lieut.-Colonel A. C. McMaster, Madras Staff Corps.*

[Received 24th February, 1871.]

These rough notes were taken during hunting and shooting trips from Kamptee. The natural history of Chikalda is interesting, as, in addition to many birds and beasts commonly found in the plains, some hitherto supposed to have been restricted to particular localities meet each other on the neutral ground of these hills.

The names and numbers here given are taken from Jerdon's "Birds of India."

No. 6. NEOPHRON PERCNOPTERUS.—I found this bird breeding near Kamptee in January.

No. 29. AQUILA FULVESCENS.—Kamptee.

No. 38. CIRCAETUS GALICUS.—I saw one of these fine birds attempt to carry off a Cobra in the public gardens at Chikalda; my approach drove the eagle away from the reptile which, however, it had crippled completely.

No. 56. MILVUS GOVINDA.—Jerdon says, that the kite "breeds from January to April, beginning to couple about Christmas." I have seen them building at Kamptee in November, December and January.

No. 65. SYRNIUM SINENSE.—I got a pair of these beautiful owls and a fully fledged young one at Gogee in Wurda district, on the 10th of March; they must, therefore, like most other birds of prey, pair early in the cold season.

No. 82. HIRUNDO RUSTICA.—Kamptee and Nagpore.

No. 84. *HIRUNDO FILIFERA*.*—I found these birds in small companies at Chandkee Khopra and Gojee in the Wurda district in December and February, and in January, a pair with a nest, open at the top, on a rock overhanging the river at Mahadulla, 16 miles from Kamptee.

No. 90. *COTYLE CONCOLOR*.—Some birds were obtained by me at Chikalda, 3700 feet, in May.

No. 98. *CYPSELUS MELBA*.—I saw several very fine swifts, which seemed to be this species, at the old fort Gawilgarh and at Chikalda, 3700 feet, in April and May, but could not get a specimen. They appeared to be breeding about the perpendicular cliffs on which Gawilgarh is perched.

No. 100. *CYPSELUS AFFINIS*.—Abounds at Kamptee, but the birds burrowed so deeply into the thatched roofs that I could never get a nest. The burrows were very neatly made and some perfectly round.

No. 117. *MEROPS VIRIDIS*.—I have found *torquatus* at Chandkee Khopra in Wurda in December, and *ferrugiceps* at the same place and time. Are not both of these accidental varieties of *M. viridis*? I also found *torquatus* at Chikalda in May; is the peculiar coloration of the throat the breeding dress of the female?

No. 118. *MEROPS PHILIPPENSIS*.—Abundant about Kamptee during the hot weather and rains (breeding season?). I think they breed here, but have not been able to get their nests, although, if these are to be found, they should be in the banks of the river, where it runs past the Military Cantonment.

No. 127. *HALCYON LEUCOCEPHALUS*.—Chandkee Khopra, Wurda district, in December.

No. 129. *HALCYON FUSCUS*.—Abundant throughout the district.

No. 144. *MENICEROS BICORNIS*.—Not rare about Chandkee Khopra in Wurda.

No. 147. *PALÆORNIS ALEXANDRI*.—One I killed near Kamptee was considerably larger than the size given by Jerdon. They appear to be more abundant in the cold season than at other times.

* I think that a large colony of *HIRUNDO FLUVICOLA* were breeding on a rock, or broken bridge (I forget which) overhanging the river at Akola in West Berar, during the last week in December.

No. 164. *YUNGIPICUS HARDWICKII*.—I got one at Chikalda, 3700 feet.

No. 181. *BRACHYPTERNUS CHRYSNOTUS*.—Chikalda.

No. 188. *YUNX TORQUILLA*.—Chikalda, in April.

No. 193. *MEGALAIMA CANICEPS*.—There are scores of these birds about Chikalda and the hill fort of Gawilgarh. I have heard them calling at all hours during the night, even when there was no moon. Those I have killed generally had the bristles about their bills covered with gummy matter, evidently from some fruit.

No. 197. *XANTHOLÆMA INDICA*.—At Kamptee I saw one of these birds sitting on the ground beside a small water-course in my garden, it probably came down to drink; except on this occasion I have never seen a barbet on the ground. A pair bred in my garden at Bellary in the cross beam of a vinery, and at Bombay I found a nest in the dead branch of a tree close to the house. The entrance was so small, that it was difficult to believe that the bird could get through it; it was perfectly circular and as well bored as if it had been cut with an anger; the hole was not more than 18 inches in depth, but the little carpenter was busily employed in enlarging it by cutting out very small chips and throwing them about the spot; as far as could be judged from probing, the inside appeared beautifully smooth.

No. 199. *CUCULUS CANORUS*.—This bird is very abundant at Russelcondah in Goomsoor during the rains, coming into the gardens and close to the houses. I have seen and heard it in the Golconda zemindary and at Goodum, in April, at Saugor in June, and within three miles of Kamptee on the 15th of June; a friend heard it at Chikalda on the 5th of June.

No. 212. *COCCYSTES MELANOLEUCOS*.—I killed one at Kamptee on the 4th of July.

No. 220. *TACCOCUA SIRKEE*.—I got one at Chikalda, but my bird had the brown above "*washed with green*" as in No. 221 of Jerdon. Could it have been that variety? or was it No. 222?

No. 234. *ARACHNECHTHRA ASIATICA*.—I can confirm Mr. Blandford and Dr. Jerdon's statements that the female retains her dull colours in the breeding-season.

No. 255. *UPUPA NIGRIPENNIS*.—Abundant at Chikalda in May,

but appears to leave the plains during the hot season and rains; the first I saw at Kamptee in autumn was on the 14th of October. At Madras I found (February 24th) a hoopoe's nest in a hole in a tree close to the club, there were two fully fledged young birds in the nest, about which there was not the faintest trace of evil stench, (vide page 391 of Jerdon).

No. 257. *LANIUS ERYTHRONOTUS*.—I have found this bird at Kamptee, and agree with Mr. Blanford, that it varies greatly in size and somewhat in plumage within the same district.

No. 278. *DICRURUS MACROCERCUS*.—Jerdon says that he has never seen the king crow fix on the back of a hawk with claws and beak. At Rangoon I saw one thus fix itself on a cattle egret feeding on the ground, hit the latter hard on the head with its beak, and repeat the assault several times, the reason apparently being that the other bird had secured some insect on which the king-crow had set his heart. At Kamptee I saw one fix on the back of an owlet (*Athene Brama*), and maintain its hold while the latter was flying for several yards; and on another occasion I saw a king-crow pursue the common bee-eater until the latter dropped an insect which was seized by the Drongo before it reached the ground.

No. 288. *TCHITREA PARADISI*.—This beautiful bird is not rare in the Nagpore country, I have seen it close to Chikalda, 3,700 feet. Jerdon says he has not seen it higher than about 2000.

No. 293. *LEUCOCERCA PECTORALIS*.—Jerdon says that he has only found this bird on the Neilgherries at an elevation of 6000 feet. Mr. Blanford got it near Chanda in forests, his specimens were dusky on the back and rather rufous on the abdomen. I got it at Chikalda in May, colours as described by Jerdon.

No. 300. *OCHROMELA NIGRORUFA*.—This has I think been seen by me among the cliffs a few miles west of Chikalda.

No. 305. *CYORNIS BANYUMAS*.—I got two or three specimens of this fly-catcher at Chikalda in May.

No. 306. *CYORNIS TICKELLII*.—Jerdon says that this bird has only as yet been procured in Central India, and by Tickell. Mr. Blanford got one at Seoni, another near Chanda (*Asiatic Society's Journal*, Vol. xxxviii, p. 173). He seems to think the sexes are

alike in plumage; on this point I agree with Mr. Blanford. The sex of the specimen I shot at Chikalda was not ascertained, but the two birds seen appeared to be a pair, and were alike in plumage. (Berar Gazetteer, page 57).

No. 342. *MYIOPHONUS HORSFIELDII*.—Jerdon says that this fine thrush is “found throughout the forests of Southern and Western India, from near the top of the Neilgherries (6000 feet) to almost the level of the sea * * * *; but it is not found in any of the forests of the Eastern Ghats, nor in Central or Northern India. It especially delights in mountain torrents; and if there is a waterfall it is sure to be found there.” I got a pair of these very handsome birds, being first attracted by their fine clear notes, in a dry bed, which in the rains must become a torrent and waterfall, a short distance beyond James’ point, about three miles west of Chikalda. Others will probably be seen. The birds at this season (May) are wary, and difficult to watch. (Berar Gazetteer, page 57).

No. 345. *PITTA BENGALENSIS*.—I killed one in my garden at Kamptee on the 2nd of October; I have known three cases of these birds taking refuge in houses as described at page 504 of Jerdon’s work.

No. 351. *PETROCOSSYPHUS CYANEUS*.—One of these silent and solitary birds may be seen in almost every village in the Wurda district in December. Both of the houses I occupied at Kamptee had one which sheltered itself under the eaves during the cold season. In Burma, this is the tamest and most confiding bird I have ever seen: it not only frequently enters the verandahs, but the inner rooms of houses, and is almost startling in its noiseless and uncanny familiarity. Whilst at Tonghoo, I had, every season, one or two of them about my house, so fearless, that they might almost have been handled. I saw one, in my verandah at Rangoon, kill and swallow a large scorpion.

No. 359. *MERULA NIGROPILEUS*.—Chikalda, April or May.

No. 446. *HYPSSIPETES GANEESA*.—At page 58 of the Berar Gazetteer, I mentioned that I had got this bird at Chikalda and remarked that its habits were exactly those of No. 446, *H. NEILGHERRIENSIS*.—I have since found in the Appendix, page 872, volume 3 of Jerdon, that the birds are identical.

No. 460. *OTOCOMPSA JOCOSA*.—I shot this bird at Chikalda in May; Jerdon says it is rare in the Central table land; Blanford never saw it in Central India; it has probably followed the chain of Western Ghats northward from the Neilgherries where it is very abundant

No. 464. *PHYLLORNIS MALLABARICA*.—Chikalda, in June.

No. 470. *ORIOIUS KUNDOO*.—I found several nests of this bird at Kamptee during June and July; they corresponded exactly with Jerdon's admirable description, at page 108, volume II. Has any writer mentioned that this bird has a faint, but very sweet and plaintive song which he continues for a considerable time? I have only heard it when a family, old and young, were together, *i. e.*, at the close of the breeding season.

No. 473. *ORIOIUS CEYLONENSIS*.—I got either this bird, or No. 472, at Chikalda, and agree with Mr. A. Hume, who (J. A. S. B. 1870, p. 118) utterly disbelieves in "*Ceylonensis*" as a distinct species.

No. 480. *THAMNOBIA CAMBAIENSIS*.—Three pairs of these birds built about the roof of my house at Kamptee. One nest was composed of coir matting stolen from me and lined with the red wool which had dropped from an old carpet daily beaten near the spot; there were no snake skins in the nest (*vide* Jerdon), but in it were two or three pieces of the brilliant mica, so abundant at Kamptee, and these very much resembled scales from snake skins.

No. 497. *RUTICILLA RUFIVENTRIS*.—I first remarked this bird at Kamptee on the 1st of October and there were a good number here on the 3rd March. Does it change its colour in summer? The rufous tints struck me as becoming paler and more yellowish in February and March; I was told of a mistake about the nest of this bird, similar to that mentioned at page 138, Volume II, of Jerdon.

No. 556. *PHYLLOSCOPUS MAGNIROSTRIS*.—I think I got this bird at Chikalda in May.

No. 569. *CULICIPETA BURKII*.—A pair of these pretty little birds was obtained at Kamptee in February, and others were not uncommon in May at Chikalda, where they probably breed.

No. 604. *AGRODROMA SORDIDA*.—I found the nest of this bird near Kamptee in April in a hole in black cotton soil, there were three or perhaps four young in the nest.

No. 645. *PARUS CINEREUS*.—I think I saw this bird on the Ghat between Ellichpoor and Chikalda, at an elevation of nearly 3000 feet.

No. 648. *MACHLOLOPHUS JERDONI*.—Chikalda, April and May.

No. 660. *CORVUS CULMINATUS*.

No. 663. *CORVUS SPLENDENS*.—The local distribution of these birds puzzles me sadly. Both abound at Bangalore and Madras, while *culminatus* is the only crow of the Neilgherries, replacing his grey cousin at Kullar, the posting-stage at the foot of the Kúnúr Ghát to which place and no further *splendens* had penetrated in 1870. I could not find *culminatus* at Waltair, and during two years at Kamptee have never seen it in that station, but have occasionally found it at some of our hog-hunting meets in the Wurda district and at Akola. It was moreover the only crow on the Chikalda hills during April and May: with the first rains, however, in June, *splendens* appeared there; (Berar Gazetteer, page 58).

Is *culminatus* to be found at Bombay?

Common and familiar as crows are—living almost as much *in* houses as *near* them—the act of coition has never—so say the natives of Burma and, I believe, of many parts of India—been observed; and, certainly, for more than twenty years, since first hearing the statement, I have carefully watched for an opportunity of refuting it without success. Just at dawn, I think, I have twice observed crows thus engaged and on the nest; but I am not certain, and I have never met any one who could own to having seen even as much. I have not a copy of the book, so quote from memory, but, in the “Laws of Menu,” (the origin of Bhudhist and Hindu notions) it is set forth that “a good wife should be like a crow,” *i. e.*, that she should not allow any conjugal endearments or familiarities before spectators.

The Burmese representatives of *splendens* are much darker than those in India, but an excellent naturalist remarks that such is the case with the Burmese varieties of many birds found in both countries; for instance, I can think of the Burmese Paradise

Fly-catcher, (*Tchitrea affinis*); the Burmese Roller (*Coracias affinis*); the Burmese Pea-fowl (*Pavo muticus*); and the Burmese variety of the Red Jungle Fowl (*Gallus ferrugineus*).

Wide awake as the crow is during the day, she is, when once gone to roost, a most stupid and difficult bird to rouse. I have almost pushed them one by one from their perches, in low trees, very shortly after sunset.

It is interesting to watch these birds at Rangoon when a storm is coming on. Up to the last moment they appear to be intent on foraging: then, just before the storm bursts, the air is alive with hundreds of them flying in all directions, but each one going direct as a bullet to his own tree or clump of bamboos. I have often timed my taking shelter from a shower coming on by watching their movements.

No. 648. *DENDROCITTA LEUCOGASTRA*.—Jerdon says that this bird has only been found in some of the jungles of the Malabar coast. I got it at Chikalda in May.

No. 724. *MELOPHUS MELANICTERUS*.—I got this bird in May at Chikalda in Berar, and as I have seen it in pairs, fancy that it breeds there; it is a shy bird, always on the move about the edges of cliffs and ravine, and therefore difficult to watch.

Nos. 772. *CROCOPUS PHENICOPTERUS*, and 773, *CROCOPUS CHLORIGASTER*.—Green pigeons are now (April and May) breeding at Chikalda. The nest is apparently very carelessly constructed of a few dead twigs placed haphazard at the end of a branch, but from this cause it is exceedingly well concealed, as the bough selected always appears to be a bare one, on which the dry twigs do not attract attention. Both varieties of these pigeons, and their intermediate hybrids will probably be found on these hills. (Berar Gazetteer, page 53).

No. 800. *PTEROCLES FASCIATUS*.—I never remarked the crepuscular habits of this bird until last August when at Akola, where just after dark on two occasions a small flock passed close over me. I pointed them out to a friend who has since observed the habit.

No. 802. *PTEROCLES EXUSTUS*.—I got the eggs of this bird, three in number, on the 12th of March, at Larkee in the Chanda district.

No. 813. *GALLUS SONNERATHI* and

No. 814. *GALLOPERDIX SPADICEUS*,—abound near Chikalda.

No. 839. *SYPHEOTIDES AURITUS*.—I saw a male of this bird in full breeding plumage at Akola in August, and on the 28th of October, near Nagpore, killed a cock just losing his ear tufts and very black. This should fix the breeding season of these birds in the Central Provinces and Berar between July and November.

No. 845. *CHARADRIUS LONGIPES*.—Do these birds visit the Central Provinces? I have never found one there.

No. 856. *SARCIOPHORUS BILOBUS*.—I got this Lapwing at Chikalda. It is far more silent than its relations, and runs with its back hunched and in a more game-like manner.

No. 864. *GRUS LEUCOGERANUS*.—This fine bird comes as far south as Kamptee. On the 3rd of February, I killed one at Koohee, about 20 miles S. E. of the Cantonment.

No. 871. *GALLINAGO SCOLOPACINUS*—is the snipe of the Nagpore country. At Bangalore, and on the Neilgherries, all the snipes I have killed were pintails, No. 870. At Madras, in December, out of a bag of 38 couples both varieties were in nearly equal proportion.

Nos. 872 and 873. The Jack and Painted Snipe are occasionally to be killed near Kamptee.

No. 936. *BOTAURUS STELLARIS*.—I got one of these rare birds near Kamptee on the 9th December, and another some years ago, on the 3rd January, two or three marches to the north of Saugor. One was said to have been killed near Bangalore in April, 1867.

No. 949. *ANSER INDICUS*.—I saw a large flock of these birds circling low over my house in the Kamptee Cantonment in February, and on the 23rd of the same month a very fine specimen was brought to me.

No. 961. *BRANTA RUFINA*.—A couple of these fine ducks were brought to me at Kamptee on the 14th January.

No. 971. *FULIGULA CRISTATA*.—Several of these birds were brought into Kamptee by shikarees in April.
